

AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior listings, and all prior versions, of claims in the application.

LISTING OF CLAIMS:

1. (CURRENTLY AMENDED) A method for removing deposit from a substrate, wherein comprising:

removing deposit that has attached to a main surface of a substrate is removed from the main surface of the substrate using a number of air knife units assemblies in which a slit portion is formed at the rear of the bottom surface so that a fluid can be discharged in band form when each air knife assembly is positioned so that the bottom surface thereof faces the main surface of a substrate and is moved relative to the substrate while a fluid is discharged from the slit portion;

forming a fluid introduction path having such a clearance as to make it possible for the fluid discharged from the slit portion to pass through in a condensed state between the main surface of the substrate and the bottom surface of each of the air knife assemblies so has to have, a fluid introduction path having an approximately uniform form in the direction perpendicular to the direction in which a number of the air knife units assemblies move relative to a substrate is formed between the air knife units and the main surface of the substrate while the air knife units move relative to the substrate;

discharging a fluid is discharged toward the fluid introduction path from a the slit portion that is formed in the rear portion of said air knife units so that the fluid passes through the fluid introduction path in a condensed state, and then, passes through the condensed fluid that passes through the fluid introduction path so as to

~~be is led to a wall surface that is formed so as to face the front portion of the the air knife units assemblies or is led to collide with the fluid from the adjacent air knife assembly that operates as a wall surface, and said fluid, which has the appearance of a wall surface, and furthermore;~~

~~leading the deposit on the substrate that has deposited on the substrate is led away from the main surface of the substrate, together with said the fluid, via a fluid lead-out path which is formed between the each air knife units assembly and the wall surface or fluid from the adjacent air knife so that the cross section of the flow path is greater than that of the fluid introduction path, and allows the condensed fluid discharged from the fluid introduction path to disperse.~~

2. (ORIGINAL) The method for removing deposit from a substrate according to Claim 1, wherein the clearance between the air knife units and the main surface of the substrate is adjusted using the Venturi effect between the air knife units and the main surface of the substrate when the fluid passes through the fluid lead-out path, and thereby, the air knife units are supported relative to the main surface of the substrate in such a manner as to fluctuate.

3. (CURRENTLY AMENDED) The method for removing deposit from a substrate according to Claim 1, wherein the air knife units are paired in the configuration, and in each pair, a fluid that is discharged from the slit portion of one air knife unit ~~has the appearance of a~~ operates as a wall surface and a fluid that is discharged from the slit portion of the other air knife is made to collide with said wall surface, and furthermore, said fluid is led away from the main surface of the substrate via said fluid lead-out path.

4. (ORIGINAL) The method for removing deposit from a substrate according to Claim 1, wherein the air knife units are aligned parallel to each other, the rear portion of one air knife unit in each adjacent pair of air knife units is used as a wall surface, and a fluid that is discharged from the slit portion of the other air knife unit is led to said wall surface, and furthermore, said fluid is led away from the main surface of the substrate via said fluid lead-out path.

5. (ORIGINAL) The method for removing deposit from a substrate according to Claim 1, wherein at least two air knife units of a pair are respectively provided on the two main surfaces, front and rear, of the substrate.

6. (CANCELLED)

7. (CURRENTLY AMENDED) The method for removing deposit from a substrate according to Claim 1, wherein the fluid that is discharged from the slit portions is a combination of a gas for drying a substrate and a liquid for cleaning a substrate.

8. (ORIGINAL) A method for drying a substrate, for removing a liquid that has attached to a main surface of a substrate from the main surface of the substrate using air knife units in which a slit portion is formed, so that a dry gas can be discharged in band form, wherein

a fluid introduction path having an approximately uniform form in the direction perpendicular to the direction in which a number of air knife units move is formed between the air knife units and the main surface of the substrate while the air knife

units move relative to the substrate, and a dry gas is discharged toward the fluid introduction path from slit portions which are formed in the rear portion of said air knife units,

next, the dry gas passes through the fluid introduction path and is led to a wall surface that is formed in such a manner as to face the front portion of the air knife units,

said wall surface is formed of a dry gas that is discharged from the slit portion of one air knife unit and a dry gas that is discharged from the slit portion of another air knife unit is led to said wall surface, and furthermore, a liquid that has attached to the substrate is led away from the main surface of the substrate, together with said dry gas, via a fluid lead-out path of which the cross sectional area of the flow path is greater than that of the fluid introduction path and which is formed between the air knife units and the wall surface.

Claims 9 - 20 (CANCELLED)

21. (NEW) A method for removing deposit from a substrate comprising:

removing deposit that has attached to a main surface of a substrate from the main surface of the substrate using air knife units in which a slit portion is formed so that a fluid can be discharged in band form;

forming a fluid introduction path having an approximately uniform form in the direction perpendicular to the direction in which a number of air knife units move relative to a substrate, so that the fluid introduction path is between the air knife units and the main surface of the substrate while the air knife units move relative to the substrate;

discharging a fluid toward the fluid introduction path from a slit portion that is formed in the rear portion of said air knife units, and then, passes through the fluid introduction path so as to be led to a wall surface that is formed so as to face the front portion of the air knife units or said fluid, which operates as a wall surface; and

leading away deposit that has deposited on the substrate from the main surface of the substrate, together with said fluid, via a fluid lead-out path which is formed between the air knife units and the wall surface so that the cross section of the flow path is greater than that of the fluid introduction path;

wherein the clearance between the air knife units and the main surface of the substrate is adjusted using the Venturi effect between the air knife units and the main surface of the substrate when the fluid passes through the fluid lead-out path, and thereby, the air knife units are supported relative to the main surface of the substrate in such a manner as to fluctuate.

22. (NEW) The method for removing deposit from a substrate according to Claim 21, wherein the air knife units are paired in the configuration, and in each pair, a fluid that is discharged from the slit portion of one air knife unit operates as a wall surface and a fluid that is discharged from the slit portion of the other air knife is made to collide with said wall surface, and furthermore, said fluid is led away from the main surface of the substrate via said fluid lead-out path.

23. (NEW) The method for removing deposit from a substrate according to Claim 21, wherein the air knife units are aligned parallel to each other, the rear portion of one air knife unit in each adjacent pair of air knife units is used as a wall surface, and a fluid that is discharged from the slit portion of the other air knife unit is led to said

wall surface, and furthermore, said fluid is led away from the main surface of the substrate via said fluid lead-out path.

24. (NEW) The method for removing deposit from a substrate according to Claim 21, wherein at least two air knife units of a pair are respectively provided on the two main surfaces, front and rear, of the substrate.
25. (NEW) The method for removing deposit from a substrate according to Claim 21, wherein the fluid that is discharged from the slit portions is a combination of a gas for drying a substrate and a liquid for cleaning a substrate.